

Object Oriented Programming (BDS-2B, BDS-2D) – Homework 5

Important Instructions:

- Submit a single. docs/pdf file which contains the output of the below code with the answers of asked questions.
- Name of your submission file should be your roll number.

Execute the following code and write output in .docs file:

<pre>#include <iostream> using namespace std; struct Test { int a; Test(int i = 1) { a = i; } Test(const Test& ref) { a = ref.a; } void display() { cout << "\nNon Const Display"; } void display() const { cout << "\nConst Display"; } void f() const { cout << "\nin f()"; display(); } void g() { cout << "\nin g()"; display(); } };</pre>	<pre>int main() { Test t1; const Test t2(23); t2.display(); t1.display(); t1.f(); t1.g(); //((Test*)&t2) here we are type casting a const object to a non-const object temporarily. ((Test*)&t2)->a = 10; cout << endl << t2.a; }</pre>
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Give ANSWERS to following questions with code screenshot. i.e see the sample answer of Q1

Q1: Can we modify the data of const object, in our case t2, after declaration and initialization?

No.

SS:

```

int main()
{
    Test t1;
    const Test t2(23);
    t2.a = 8;
    t2.display();
    t1.display();
    t1.f();
    t1.g();
    //((Test*)&t2) here we are type casting a const object to a non-const object temporarily.
    ((Test*)&t2)->a = 10;

    cout << endl
         << t2.a;
}

```

Q2: can const object call const function(s)?

Q3: can const object call non-const function(s)?

Q4: can non-const object call const function(s)?

Q5: can non-const object call non const function(s)?

Q6: can const function call const function(s)?

Q7: can const function call non const function(s)?

Q8: can non-const function call const function(s)?

Q9: can non-const function call non const function(s)?